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Determining the Statewide Sales Tax Rate under SJR 29 & HJR 56

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Senate Joint Resolution 29 and House Joint Resolution 56 are currently being debated in the Missouri Legislature. The proposals would place a constitutional amendment on the ballot to dramatically change the state's revenue structure by eliminating the individual income and corporate income/franchise taxes and replacing them with a greatly expanded sales tax. The new statewide sales tax would both increase the current sales tax rate and expand the current base of the state sales tax to include all purchases and services, including food, prescription drugs, medical care, child care and other basic living expenses that are not currently taxed.

Proponents of the measure, specifically the Show-Me Institute, have claimed that the costs of the bill - both the elimination of all state taxes and local taxes as specified[i], and the cost of the new "sales tax prebate" proposed in the legislation - could be paid for with a 5.79 percent statewide sales tax rate.[ii] More recently, they increased that amount to 6.25 percent, although the Missouri Budget Project has been unable to find any published information on their most recent calculations.

However, both national and local policy experts agree that the state sales tax rate would need to be significantly higher to fully offset the costs of the legislation. In fact, the Missouri Budget Project (MBP) and the Institute on Taxation and Economic Policy (ITEP) concur that the data indicate that the new statewide sales tax rate would need to be increased to more than **11 percent** for the proposal to be revenue neutral (meaning bring in no more and no less revenue than the state currently collects).[iii]

In order to provide state lawmakers and Missouri citizens with access to completely transparent information on the rate, the following demonstrates specifically why an 11 percent statewide sales tax rate is required under the proposals. Table 1, below, illustrates the main differences between the Show-Me Institute (SMI) calculation of the new statewide sales tax rate and the Missouri Budget Project's analysis of the new sales tax rate. The SMI calculation significantly overestimates the base of taxable spending in Missouri while simultaneously undervaluing both the tax revenue that is required to be replaced under these proposals and the cost of the prebate. The MBP and ITEP analyses have used meticulous formulas and data gathering to determine a more reliable and accurate picture of the impact of the proposal. The strenuous nature of this review is critical to provide an accurate assessment to Missourians and state lawmakers as the basis for a thoughtful discussion of the proposed policy.

The short brief that follows gives more detail on how the Missouri Budget Project specifically calculated each component. The final section critiques the techniques used by the Show-Me Institute for comparison.

Table 1: Explaining the difference between the MBP & ITEP's calculations of an 11 percent rate and the Show-Me Institute's (SMI) calculation of a 5.79 percent rate

	SMI	**MBP/ITEP**	**SMI as % of MBP**
U.S. Personal Consumption Expenditures		$10.13 trillion	
Missouri tax base	$158.5 billion	$120 billion	**+32%**
Cost of taxes to be replaced	$7.117 billion	$9 billion	**-21 %**
Cost of prebates	$2.066 billion	$4.4 billion	**-53%**
Rebate cost per 1 percent sales tax rate	$357 million	$400 million	**-11%**
Calculated New Statewide Sales Tax Rate	**5.79%**	**11.2%**	

Overview of Missouri Budget Project & Institute on Tax and Economic Policy Rate Calculation

Table 2: Summary of SJR 29 & HJR 56 Tax Rate Calculation	
Costs Replaced by New Statewide Sales Tax:	
Taxes that are eliminated and replaced (See Section I, below, for details)	$9 billion
Cost of the prebate (Section III, below, for details) (Base of Tax x Rate of Tax) = (Cost of Repealed Taxes + Cost of Prebate)	$4.4 billion
Total revenue to replace	$13.4 billion
Tax base (Section II below, below, for details)	$120 billion
New Missouri Statewide Sales Tax Rate	**11.2 Percent**

Section I: Estimating the Cost of Replacing Lost Tax Revenue

The measure specifically calls for the replacement of the following state (and select local) tax revenues. The new sales tax rate would be determined based on the average of the last three fiscal years, so the average of fiscal years 2006 through 2008 is provided below[iv]:

- Individual income tax — $4.902 Billion
- General revenue sales tax — $1.949 Billion
- Dedicated state sales taxes[v] — $946 Million
- Motor vehicle sales/use tax — $327.5 Million
- Corporate income/franchise tax (including bank franchise) — $445.2 Million
- County foreign insurance tax — $179.6 Million[vi]
- St. Louis and Kansas City earnings tax — $340.4 Million[vii]

The total revenue generated by all of these taxes averaged $9.09 billion per year between FY 2006 and 2008.

Assumptions used by the Missouri Budget Project to calculate the new sales tax rate

The Missouri Budget Project specifically used fiscal years 2006 – 2008 revenue data because they represent solid, pre-recession level revenue. By using the data from these years, the MBP is inherently assuming that it is not the legislative intent of the measures to constitutionally tie Missouri's revenues to those collected during the current fiscal crisis. If the final language does require that fiscal years 2010 and 2011 be utilized to determine the rate, the proposed tax rate would be lower.

In addition, the 2010 bills includes the elimination of the Kansas City and St. Louis Earnings tax revenue and the elimination of all state sales and use taxes, so those revenue amounts are incorporated into the amount of total revenue needing to be replaced.

However, the bills specifically impact the motor vehicle sales tax in one more way. They require the new sales tax to be applied to new vehicles, but exempt used vehicles from sales tax. The result would be a significant decline in the revenue stream currently earmarked for road construction and maintenance. Technically, exempting used vehicles from the base of taxable items would need to result in an increased sales tax rate to account for the difference in the base. The MBP and ITEP did not adjust for this, assuming a more conservative rate.

Assumptions used by the Show-Me-Institute in calculating the new sales tax rate

By comparison, the Show-Me Institute October 2009 analysis of state revenue simply uses fiscal year 2009 revenue totals from only three statewide revenue categories (individual and corporate income taxes and the general revenue sales tax) to reach a $7.117 billion revenue base. The earnings tax and other eliminated taxes, which will need to be replaced under these proposals, are not included. This significantly underestimates the amount of revenue needed to be replaced by the proposal.

Section II: Estimating the Expanded Sales Tax Base

The proposal would expand both the sales tax rate and the sales tax base to include all purchases and most services, including those currently exempted from the sales tax (only higher education tuition and fees and business to business transactions are specifically exempt in the bill). No other state applies a sales tax to all purchases and services. In other words, there is no "road map" of tax data based upon another state's experience. All of the data must be secured from existing measures of consumer spending, with a careful eye toward ensuring that those measures incorporate the most accurate picture of taxable items and services.

Assumptions and calculations used by the Missouri Budget Policy and the Institute on Taxation and Economic Policy

Therefore, to develop an accurate estimate of the new tax base, the Missouri Budget Project and Institute on Taxation and Economic Policy used 2008 Personal Consumption Expenditure (PCE) data on spending from the U.S. Bureau of Economic Analysis. This data gives a detail of total consumption spending in the nation in 2008 of $10.13 trillion. From that figure, based on the Missouri share of personal income in the nation (1.72 percent), an estimate of Missouri spending can be derived.

To use the personal consumption data correctly, however, requires a meticulous review to identify the amount of consumer spending that is actually taxable under these proposals. The Missouri Budget Project and the Institute on Taxation and Economic Policy adjusted the personal consumption data to exclude items that are specifically exempt from tax in the bills (such as higher education and business to business transactions) and further adjusted to exclude: the consumer spending categories that are not taxable under federal law; those items that do not represent real spending in the state; and those items that would be nearly impossible to tax. In addition, the MBP and ITEP added back into the data items that are not normally included but which do represent actual spending within Missouri and would be taxable under these proposals, such as new home sales. Table 3 illustrates the calculation of the taxable base under this methodology.

Table 3: Calculating the Tax Base Using U.S. Personal Consumption Expenditure Data	
National PCE in 2008:	**$10.13 Trillion**
Categories Removed from PCE total:	
Higher education (specifically exempt in proposal)	-$135 billion
Health care spending by the government (examples: Medicaid & Medicare, not taxable under federal law)	-$889 billion
Free checking & other financial services	-$271 billion
Rental value of owner occupied housing (The potential rental value of properties not actually being rented out, being used by the owner)	-$1.212 trillion
Food stamps (not taxable under federal law)	-$33 billion
Spending by charities on behalf of individuals	-$279 billion
Interstate transportation – air & ground travel (not taxable under federal law)	-$62 billion
Foreign travel (actual spending occurs in other countries but is measured by PCE)	-$125 billion
Categories ADDED to PCE total:	
Foreign travel to the United States	+$139 billion
Value of new home sales	+$477 billion
Net Base of Personal Consumption Nationwide:	**$7.74 Trillion**
TAXABLE Personal Consumption Expenditures (Assumes subtracting 10 percent of consumption for tax avoidance)	$6.966 trillion
Missouri Share of Taxable Net PCE Base (1.72 percent of national personal income and spending)	**$120 billion**

As indicated in Table 1, the calculation of the taxable base is one of the most significant distinctions between the Missouri Budget Project and Institute on Taxation and Economic Policy's calculations and the Show-Me Institute's calculations. The SMI assumes a tax base that is 32 percent larger than that calculated by the MBP and ITEP.

Assumptions and calculations used by the Show-Me Institute

The SMI appears to have used a much larger estimate of Missouri Personal Consumption Expenditures of $158.5 billion as the taxable base. To arrive at this amount, the SMI must incorporate many of the categories of

PCE data <u>that are not taxable</u>. In addition, rather than calculating Missouri's share of the national PCE based on Missouri's share of personal income, as the MBP and ITEP did, the SMI assumes that the PCE spending is a ratio compared to the national GDP (Gross Domestic Product). This larger base would require not only the non-taxable spending categories to be included but also require the inclusion of the items that are specifically exempted in the bill, such as higher education spending and some of the business to business spending. The MBP believes the SMI methodology used to determine the base simply results in an inaccurate assessment of the taxable base.

Section III: Estimating the Cost of the Sales Tax "Prebate"

Assumptions used by the Missouri Budget Project and the Institute on Taxation and Economic Policy

In addition to the replacement costs of eliminating current taxes, the measures call for replacing the revenue lost due to the creation of a new "sales tax prebate". The prebate would be given to each qualified family in the state (the bill language is inconsistent on this, at one point referring to each qualified family and at another referring to each qualified household. The MBP and ITEP assume the intent is to provide each family with the prebate). The amount of the prebate is calculated by multiplying the federal poverty level based on family size with the amount of the new sales tax rate. For example, the 2009 federal poverty level for a family of three in Missouri is $18,310.[viii] In order to determine the amount of income below the poverty level in Missouri for this calculation, the Institute on Taxation and Economic Policy has a precise, computerized model that is able to determine that amount. This amount, $39.33 billion, would be multiplied by the new sales tax rate to estimate the cost of the prebate.

This also means that the cost of the prebate cannot be determined until the new sales tax rate is known, and the amount of the sales tax cannot be known until the cost of the prebate is calculated. It becomes a little like the "chicken and the egg" debate. As a result, the amount of cost and the amount of the prebate need to be determined simultaneously through an algebraic formula:

(Base of Tax x Rate of Tax) = (Cost of Repealed Taxes + Cost of Prebate)
Or
($120 billion in Consumption x New Sales Tax Rate) = ($9 billion + ($39.33 billion x rate))

In the above formula, the sales tax prebate cost is based on total income below poverty in Missouri, or $39.33 billion.[ix] **Based on the formula, the cost of the prebate is estimated to be $4.4 billion in the first year.**

Assumptions and calculations used by the Show-Me-Institute

By comparison, the Show-Me Institute over-simplifies the determination of the prebate cost by simply multiplying their expected sales tax rate of 5.79 percent with the amount of tax filers in Missouri (2,626,800) by the federal poverty level for an average family size of 2.2. Ironically, even assuming this formula would be accurate, but using the Missouri Budget Project expected sales tax rate of 11 percent, the calculation of the cost of the prebates still results in a total cost of $4.5 billion. A significant problem with the SMI calculation is that it simply does not take into account the "chicken and the egg" conundrum. By comparison, the MBP and ITEP used a much more precise algebraic formula to determine an accurate cost for the prebate and the more accurate sales tax rate simultaneously.

Section IV: Summary and Conclusion

Although the proponents of the measure have recently increased their estimate of the necessary state sales tax rate to 6.25 percent, there is no public documentation of how that rate was calculated. Therefore, to compare methodologies, the Missouri Budget Project and the Institute on Taxation and Economic Policy use the Show-Me Institute's methodology as explained in their October 2009 report, which arrived at the 5.79 percent rate calculation.

Differences in the Taxable Base:

Clearly, one of the most significant distinctions between the Missouri Budget Project and Institute on Taxation and Economic Policy's calculations and the Show Me Institute's calculations is the expected Missouri taxable base. The SMI assumes a tax base that is 32 percent larger than what the MBP and ITEP analyze as possible. As noted previously, because there is no "road map" of data from another state to follow to determine what the taxable base is. Analysts must look very closely at the consumption data to determine the most accurate base.

To ensure the most accurate base, the Missouri Budget Project and the Institute on Taxation and Economic Policy excluded those items that are not taxable under federal law, items that do not represent real spending in the state and items that would be nearly impossible to tax. In addition, the MBP and ITEP added back into PCE data items that are not included that do represent spending in Missouri. Table 3, previously, illustrates the calculation of the taxable base under this methodology. This represents the most reliable methodology, because it details the taxable items and services that Missourians actually spend money on within state boundaries – items which would be taxable under these proposals.

The SMI instead appears to have used a much larger estimate of Missouri Personal Consumption Expenditures of $158.5 billion as the taxable base, incorporating many of the categories of PCE data that are not taxable. In addition, the SMI assumes that the PCE spending is a ratio compared to the national GDP (Gross Domestic Product). This larger base would require not only the non-taxable spending categories to be included but also require that some of the items that are specifically exempted in the bill, such as higher education spending and some of the business to business spending, be included as well. The SMI methodology to determine the base simply does not develop an accurate assessment of the taxable base.

Differences in the Amount of Tax Revenue to be replaced:
As indicated in Section I of this brief, the MBP and ITEP calculate the amount of tax revenue to be replaced by averaging three years of collected statewide revenue, as required in the bill language. The MBP and ITEP used fiscal years 2006 – 2008 specifically because they represent solid, pre-recession level revenue. Further, the MBP incorporates the revenue needed to replace the County Foreign Insurance and Kansas City and St. Louis Earnings tax revenue, which are eliminated in the proposals, into the revenue totals. Finally, the dedicated statewide sales tax rates are included within the bill language and therefore incorporated into the MBP and ITEP calculations to provide a solid estimate of the new base statewide sales tax rate.

By comparison, the SMI October 2009 analysis of state revenue simply uses fiscal year 2009 revenue totals from only three statewide revenue categories to reach a $7.117 billion revenue base. This significantly underestimates the amount of revenue needed to be replaced by the proposal.

Differences in the Prebate Cost:
As mentioned under Section III of this analysis, determining the prebate cost is a little like the "chicken and the egg" debate. Because the prebate amount is specifically calculated by multiplying the poverty level based on family size with the new sales tax rate, the amount cannot be known until the sales tax rate is determined. As the prebate cost is calculated, the sales tax rate must increase in order to pay for the cost of the prebate. To account for this difficulty, the Missouri Budget Project and the Institute on Taxation & Economic Policy utilized an algebraic formula to determine accurate levels for both simultaneously.[x] The formula is included in Section III of this brief. In addition, the MBP and ITEP had access to the very precise data on income below poverty in Missouri that the Show-Me Institute did not.

The SMI analysis from October 2009 oversimplifies the calculation by simply multiplying their expected sales tax rate of 5.79 percent with the amount of tax filers in Missouri (2,626,800) by the federal poverty level for an average family size of 2.2. A significant problem with the SMI calculation is that it simply does not take into account the "chicken and the egg" conundrum.

Conclusion
The Show Me Institute calculation of the sales tax rate that would be needed to keep these proposals revenue neutral significantly overestimates the base of taxable spending in Missouri while simultaneously undervaluing both the tax revenue that is required to be replaced under these proposals and the cost of the prebate. The Missouri Budget Project and Institute on Taxation and Economic Policy analyses have used meticulous formulas and data gathering to determine a more reliable and accurate picture of the impact of the proposal. The strenuous nature of this review is critical in order to provide Missourians and state lawmakers with an accurate assessment

with which to have a thoughtful discussion of state tax policy and to understand the true impact these proposals would have on Missouri families and our state's economy.

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[i] The 2010 Measures eliminate the St. Louis and Kansas City Local Earnings Taxes in addition to statewide taxes.

[ii] http://www.showmeinstitute.org/publication/id.216/pub_detail.asp

[iii] For more information see the ITEP testimony to the Senate Committee provided on 1/28/2010 at http://www.itepnet.org/motest0110.pdf, and the MBP summary fact sheet at: http://www.mobudget.org/files/Mega%20Sales%20Tax%20Fact%20Sheet%20January%202010.pdf

[iv] MBP uses the FY 2008 and prior revenues collected specifically because it was pre-recession revenue. If the measure were instead based on the current year revenue it would tie Missouri's future revenue to the current recession levels, which MBP does not believe is the legislative intent of the measure. All of the revenue information was obtained from the Missouri Office of Administration and Missouri Department of Revenue.

[v] MBP includes the statewide dedicated sales taxes in this estimate because they are required under the measure to be recalculated for the expanded sales tax base. It is also useful to include them in order to get a real picture of what the total statewide sales tax rate would need to be.

[vi] The measure does not specifically list "County Foreign Insurance" as one of the replaced taxes, it is implied.

[vii] Estimated tax revenue for St. Louis City and Kansas City from the Secretary of State's analysis of Initiative Petition language submitted for the repeal of the local tax revenues, available at:
http://www.sos.mo.gov/elections/2010petitions/10init_pet.asp#2010077
More detail is available within the city budget documents: Kansas City Earnings Tax Average 2006 – 2008 of $192 million City of Kansas City Comprehensive Annual Financial Report available at
http://www.kcmo.org/CKCMO/Depts/Finance/2008ComprehensiveAnnualFinancialReport/index.htm
St. Louis City Earnings Taxes Average FY 2008 – FY 2010 of $141.3 average FY 2008 - 2010 St. Louis City FY 2010 Annual Operating Plan Executive Summary at http://stlouis.missouri.org/government/budget10/2-%20Summary%20&%20Overview.pdf, Combined St. Louis and Kansas City Earnings Taxes last three years average of $313 million

[viii] U.S. Department of Health and Human Services Federal Poverty Guidelines available at:
http://aspe.hhs.gov/poverty/09poverty.shtml

[ix] ITEP Calculation of income below poverty for all families.

[x] The MBP did not rely on the fiscal note for the proposal, which in the 2009 Legislative Session did include flawed methodology.